

GridMate - The Grid Matlab Extension

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Matlab is a powerful tool for rapid prototyping and algorithm development and application in various scientific fields. In the meanwhile Matlab is even able to run functions in parallel on a network of machines, but it is still difficult to run Matlab functions on Grid resources. For this purpose GridMate was developed at the Institute for Data Processing and Electronics of Forschungszentrum Karlsruhe. The aim of GridMate is to run arbitrary Matlab functions in parallel without struggling with special extensions or licenses. On one hand GridMate uses the Matlab Runtime Environment to run Matlab functions remotely integrated in WSRF-compliant web services. On the other hand GridMate offers a Matlab toolbox to integrate a web service client seamlessly into any Matlab application. It allows parallel access to the deployed web services at Grid and Cloud Computing resources and hides the technological complexity. In first tests GridMate was able to scale almost linear.

